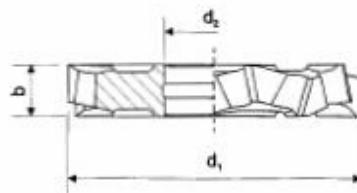


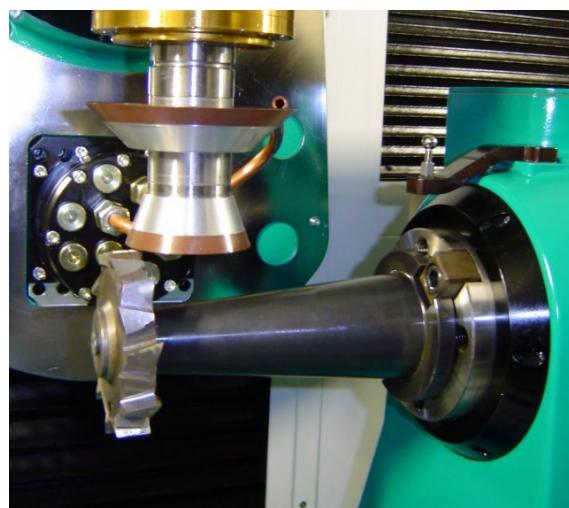
Application Data Sheet

Side milling cutter



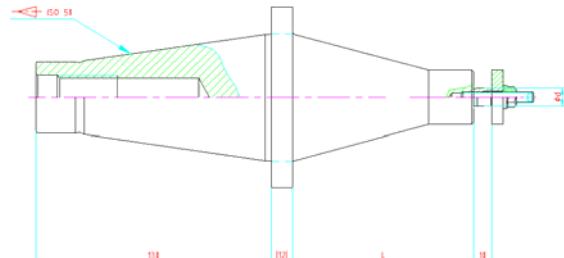
Side milling cutters are generally subdivided into cutters with straight and cutters with staggered teeth. Staggered milling cutters are more complex to handle, all the operations executed are alternating between up and down cutting edges.

With the Quinto software "side milling cutters" it's possible to grind non staggered teeth and staggered teeth side milling cutters, straight and corner break with maximal two clearances in one setup. The sides, eventual chamfer or radius can be ground in one setup. The standard resharpening operations O.D. and flute allow a fast grinding of the tool



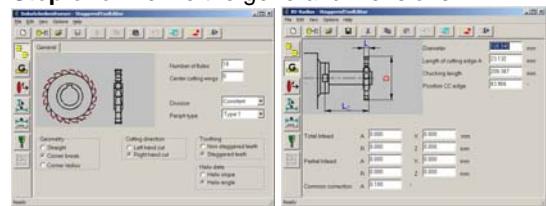
1 Fixturing

To clamp side milling cutters we recommend following fixturing which we supply in various lengths and diameters.

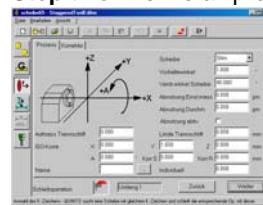


2 Programming

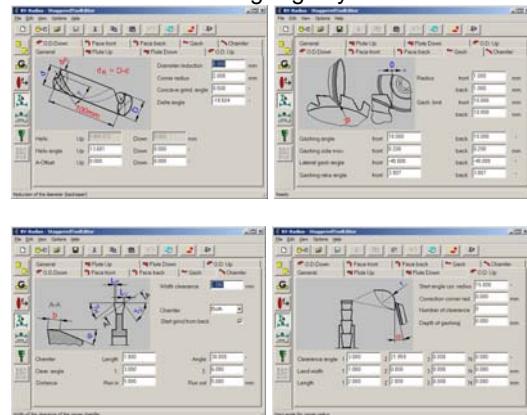
Step one: Define the general dimensions



Step two: Define all process parameter



Step three: All specific geometry data has do be defined on the following registry



3 Cycle time for production

Tool specification

Diameter: 110mm, Cutting edges: 18, Length cutting edge: 19mm, Helix angle: 30deg and Material: HSS

Operations		Flut 1	Gashing 1	O.D. 1	O.D. 2	Face 1	Face 12
Feed [mm/min]	2000	100	100	300	500	120	120
Power [kW]		2	2	1	1	1	1
Cutting speed [m/s]		16	24	24	24	24	24
Wheels							
Grinding time [s]	17	326	957	131	94	630	594
Total cycle time [s]	45 Min 49s						

The above cycle times are indicative. The material to be ground, other grinding wheels and other coolants can influence the cycle times considerably.

Machine and Software Requirements

Machines: 5 axes CNC grinders: CORVUS GDS, GEMINI DMR, NORMA CFG

Control: Fanuc 160i

Coolant: Water soluble, pressure 6 – 7 bar

Software: Quinto NT



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